

His preparations of the diseased tissue show fairly large irregularly shaped corpuscles and very small granules, both clearly foreign elements, being entirely absent in healthy tissue. The author agrees with IWANOWSKI as to the probable interpretation of the foreign elements, namely, "that the minute granules are very small bacteria, carriers of the virus, and further that the irregularly shaped corpuscles must be considered as a pathological product of reaction of the virus carrier on the cell plasm." This causal organism is thought to be a species of *Strongyloplasma*, and is named *S. Iwanowski* in honor of its original discoverer.—J. M. C.

Effect of age on plant structure.—Miss TELLEFSEN¹⁸ has studied the effect of age upon certain tissues of *Salix nigra*. This species was chosen chiefly because of the comparative ease with which specialized tissues, as roots, will develop from the meristematic tissue of cuttings under laboratory conditions. Numerous tables of measurements are given, and some of the conclusions are as follows. Cuttings from younger trees rooted in less time than those from older trees, and also leaves appeared earlier. Epidermal and cortical cells of the root become smaller as the parent tree becomes older, and xylem and meristematic become larger. The average area of vein islets in leaves from older trees is smaller than average vein islet areas of leaves from younger trees, the amount of vascular tissue increasing with senility, thus reducing the average area of vein islets.—J. M. C.

Leaf-skin theory.—Miss SAUNDERS¹⁹ has reached the conclusion that the surface tissue of the seed plant shoot is of foliar origin, meaning that the leaves are decurrent, not merely those that are usually called so, but all leaves. In the same way the superficial tissue of the hypocotyl are derived from the cotyledons. This so-called leaf-skin is formed by the "downward growth and extension of the leaf primordium, which keeps pace with the extension of the central axis with which it is fused. In the case of flowering stems the leaf-skin is formed by the bracts (when present) and the outermost sepals." Miss SAUNDERS has gone into many details as to the extension of a single leaf surface in relation to the different types of phyllotaxy, the various surface patterns developed, and other features.—J. M. C.

Intrafascicular cambium in monocotyledons.—Mrs. ARBER,²⁰ in continuing her investigations of the occurrence of intrafascicular cambium in monocotyledons, has added Alismaceae, Aponogetonaceae, and Hydrocharitaceae to the list of monocotyledonous families, in some member of which this tissue has been

¹⁸ TELLEFSEN, MARJORIE A., The relation of age to size in certain root cells and vein islets of the leaves of *Salix nigra* Marsh. Amer. Jour. Bot. 9: 121-139. 1922.

¹⁹ SAUNDERS, EDITH R., The leaf-skin theory of the stem: a consideration of certain anatomico-physiological relations in the Spermatophyte shoot. Ann. Botany 36: 135-165. figs. 34. 1922.

²⁰ ARBER, AGNES, Studies on intrafascicular cambium in monocotyledons. V. Ann. Botany 36: 251-256. figs. 8. 1922.